

Friday, November 25, 2016 7:43:17 AM

153798

Page 1

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: Mounting Lug

Start Date: 11/28/2016 **Start Qty:** 3.00 ***3***

Cust Item ID:

Required Date: 12/5/2016 **Req'd Qty:** 3.00 ***3***

Customer:

Reference:

Approvals: _____ **Process Plan:** 21 **Date:** NOV 20 2016

Tooling: _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
-----------------	---------------------

D3052 Rev B

100	0.00
-----	------

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 5.600" long ****1 BLANK MAKES 2 PARTS*****

110	0.00
-----	------

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per folio FA184 Deburr

120	QC2- Inspect parts off machine FAI/FAIB	0.00
-----	---	------

120

QC

Memo

0.00

Quality Control

DQA:

Date: Jan 3 2017



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16-12-19

Work Order update only ☐

Work Order: 153798		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. D3052-1		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. 16-676		Scrap ☒		Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date: 16-12-2		Step #: 110		QTY Effective: 1			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition			9-89 16-12-05		
bad origin Y 3 rd op (tool MARK) R/c Lack of attention				Scrap n replace B# = M129167			Completed By		
							JPC 16/12/02		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
							DAS 9 9-89 16-12-05		
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☒	Bending ☐	Set-up ☒	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☒	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

Work Order ID 153798

Friday, November 25, 2016 7:43:17 AM

153798

Page 2

Item ID: D3052-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Mounting Lug
Start Date: 11/28/2016 Start Qty: 3.00 ***3*** Cust Item ID:
Required Date: 12/5/2016 Req'd Qty: 3.00 ***3*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
130									
QC	Memo	0.01							DAS 08 9-99
Quality Control									
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.00							
Hand Finishing									
150	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
150									
Powdercoat	Memo	0.08							
Powder Coating	*****mask slot as per dwg*****START TIME: 3:20 OVEN TEMPERATURE: 11.05 FINISH TIME: 11.35								

(X5) 2016/12/05 BEB

5 0 16-12-08. DAS 34 9-99

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐ Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date :		Step #:		QTY Effective :		MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				
								Completed By
								Lead hand / Supervisor Approval Verification
								QC / QA Coordinator Approval
Root Cause				FAULT CATEGORY				
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER :								

Work Order ID 153798

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153798

Page 3

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00							
160									
QC	Memo	0.00				5			DAS 38 9-89
Quality Control									DEC 08 2016
170	Identify as per dwg & Stock Location: <u>5734</u>	0.00							
170									
Packaging	Memo	0.00				5			DAS 6 9-89
Packaging									DEC 13 2016
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.05							DAS 21 9-89
Quality Control									DEC 14 2016 ME 16-12-13

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Picklist Print

Friday, November 25, 2016 7:43:16 AM

Page 1

Work Order ID: 153798

153798

Parent Item: D3052-1

D3052-1

Parent Item Name: Mounting Lug

Start Date: 11/28/2016

Required Date: 12/5/2016

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP: A02.01.28New IssueNG
IPP: B Rev.B dwg 07-09-25 DD verified by EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.000X04.00 0		Purchased		No		100	f	21.1555	0.25	0.789474			

M6061T6B1 000X04 000

6061-T6 Bar 1.00 x 4.00

1.425' + .500

DAS
20
9-89

16-11-30

Location

MAT003

Loc Qty

21.1555

Loc Code

→ M129167

3.6

M134553

1.5055

M134776

2

→ M135559

2.05

M135861

12

+ .500

1.425'

+ ~~800 ft~~

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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OTHER : _____																																																															

DART AEROSPACE LTD		Work Order: 153798
Description: Mounting Lug		Part Number: D3052-1
Inspection Dwg: D3052	Rev: 4 B A M	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

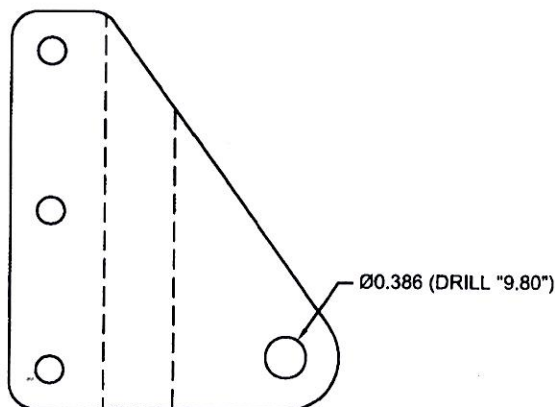
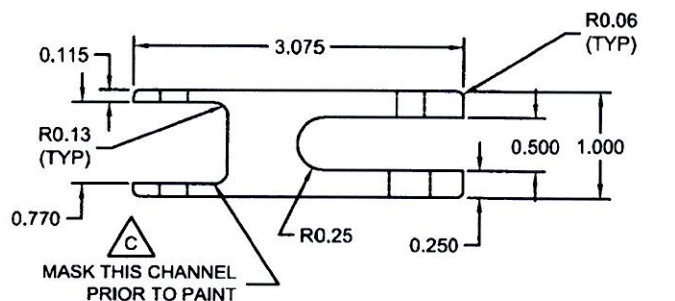
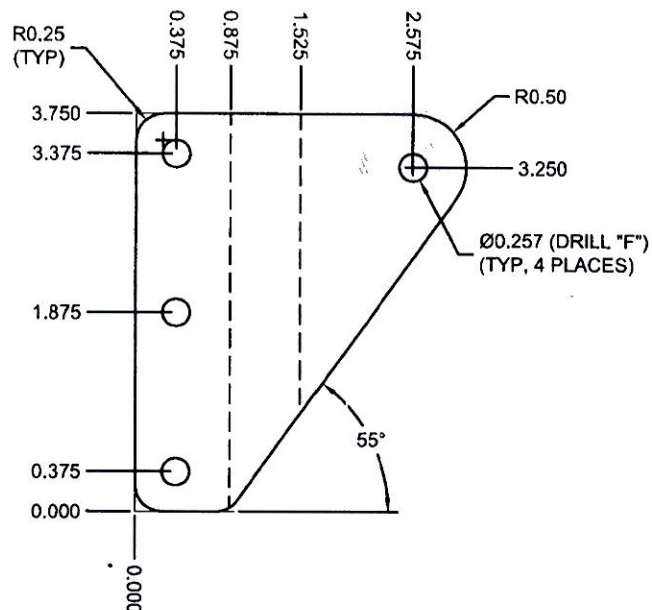
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.250	+/-0.010	1.25	✓		radg	Shop
0.375	+/-0.010	0.370	✓			
0.875	+/-0.010	0.874	✓		HV	31006
1.525	+/-0.010	1.522	✓		"	"
2.575	+/-0.010	2.574	✓		Caliper	JTC-01
R0.500	+/-0.010	1.500	✓		radg	Stop
3.250	+/-0.010	3.247	✓		HV	31006
Ø0.257	+0.006/-0.001	0.259	✓		Caliper	JTC-01
0.375	+/-0.010	0.373	✓		↓	↓
1.875	+/-0.010	1.873	✓		↓	↓
3.375	+/-0.010	3.373	✓			
3.750	+/-0.010	3.745	✓		HV	31006
0.115	+/-0.010	0.117	✓		micron	JTC-01
3.075	+/-0.010	3.070	✓		HV	31006
R0.06	+/-0.030	1.06	✓		radg	Stop
0.500	+/-0.010	0.504	✓		Caliper	JTC-01
0.250	+/-0.010	0.253	✓		↓	↓
0.770	+/-0.010	0.767	✓			
1.000	+/-0.010	1.003	✓		↓	↓
3.750	+/-0.010	3.745	✓			
Ø0.386	+0.006/-0.001	0.386	✓		↓	↓
	DAS 45 9-80					

Measured by:	DAS 45 9-80
Date:	16-12-2

Audited by:	h a DAS 08 9-89
Date:	16-12-03

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.10.05	New Issue	KJ/JLM	BE



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153798MJS
16-11-29

RELEASED

07.08.29 *[Signature]*

D3052-1 MOUNTING LUG

NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
PER AMS-QQ-A-200/8 (OR AMS 4160)
(REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3052-1" USING FINE
POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.44 lbs

B	- ADDED MASKING DETAIL - DUE TO TIGHT FIT WHEN INSTALLED ON BASKET - ADD MASKING STEP TO ESTIMATE	DC	07.07.25
A	NEW ISSUE	RF	01.11.01
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D3052	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	MOUNTING LUG	1:2
DATE	07.07.25	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	